

Work Order ID 121407

Thursday, June 26, 2014 2:58:52 PM

121407

Page 1

Item ID: D4885-5 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: End Fitting
Start Date: 6/26/14 Start Qty: 5.00 ***5*** Cust Item ID:
Required Date: 6/26/14 Req'd Qty: 5.00 ***5*** Customer:
Reference:

Approvals: Process Plan: HL5 Date: 11-06-27 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4885	REV A

100

0.00

100

Outsource5

Outsource process - Machining

Memo

ISSUE P/O: 24906
POSSIBLE SUPPLIER: ATG

C OF C IS REQUIRED

0.00

CL 14/07/08 5

110

QC6- Inspect dimensions to drawing

0.00

110

QC

Quality Control

Memo

0.00

(5)DAS
38
9-89

JAN 07 2015

150

PURCHASING

0.00

150

Purchasing

Purchasing

Memo

Issue P/O: 24906
LPI Per ASTM 1417 LEVEL 2
Certificate of conformaty is required

0.00

CL 14/07/08

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other _____ _____ _____
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Work Order ID 121407

121407

Page 2

Item ID: D4885-5

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: End Fitting

Start Date: 6/26/14

Start Qty: 5.00

5

Cust Item ID:

Required Date: 6/26/14

Req'd Qty: 5.00

5

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

Receive & Inspect for Damage & Mat'l Certs

0.00

160

Packaging

Memo

0.00

Packaging

Ensure certificate of conformity is attached

165

St

137

190

QC21- Final Inspection - Work Order Release

0.00

190

QC

Memo

0.00

Quality Control

5 JAN 07 2015

DAS
06
9-89

MLJ 15-01-08

15-1-8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other _____ _____ _____
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Picklist Print

Thursday, June 26, 2014 2:58:52 PM

Page 1

Work Order ID: 121407

121407

Parent Item: D4885-5

D4885-5

Parent Item Name: End Fitting

Start Date: 6/26/14

Required Date: 6/26/14

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP REV:A NEW ISSUE 14-01-28 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4885-5P		Purchased	No				Each	0.0000		5			
D4885-5P									**	5x		8015-01-7	
End Fitting													
M174PH-H900R2.000		Purchased	No				f	47.0458		2.157895			
M174PH-H900R2 000									**	14-710			
17-4SS H900 ROUND BAR 2.000													
				<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>				
				MAT031			47.0458						
				* M128314			22.4			2.2			
				M128809			24.6458						

DAS
13
8-88

2.4

1 Leaf extra DAS
13
8-88

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

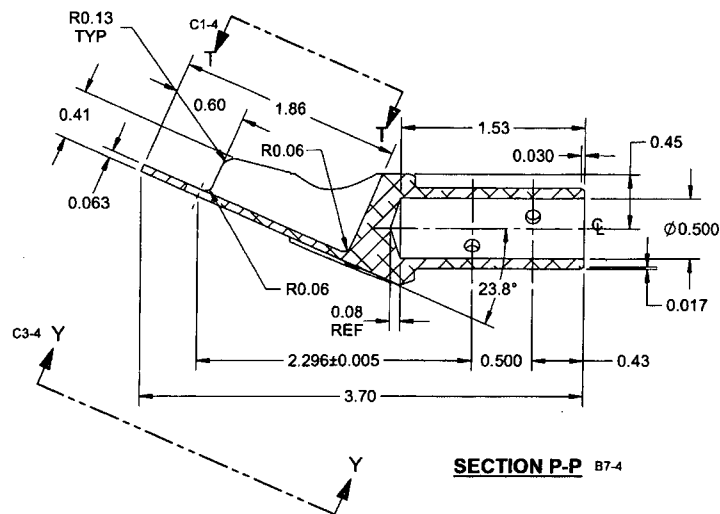
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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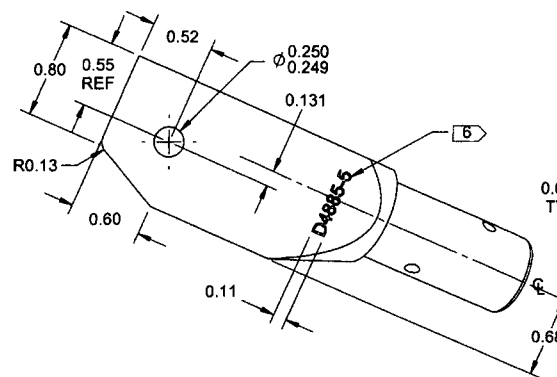
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

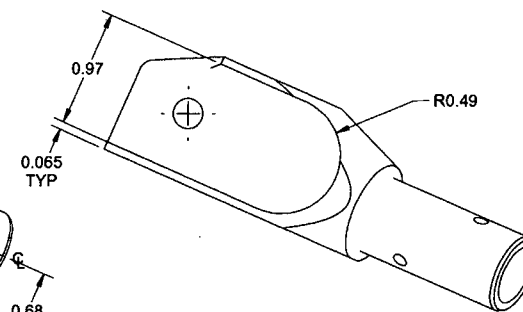
Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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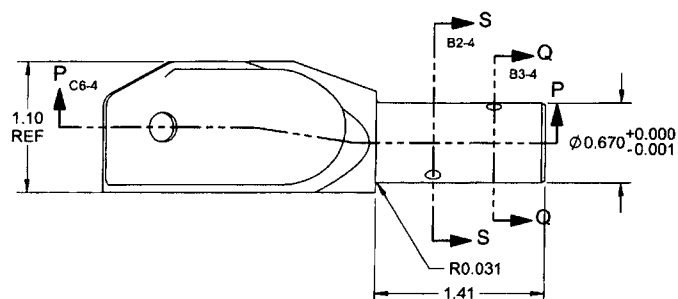
SECTION P-P B7-4



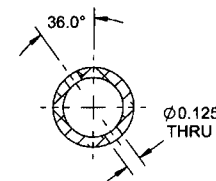
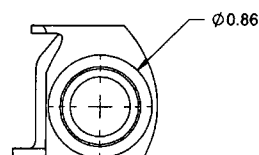
AUXILIARY VIEW Y-Y C8-4



AUXILIARY VIEW T-T D7-4



SECTION Q-Q B6-4



SECTION S-S B6-4

NOTES:

- 1) MATERIAL: 17-4 PH/S17400/TYPE 630 SS ROUND BAR, H900 CONDITION
PER AMS 5643/ASTM A564
DART SPEC M17-4-R
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.3.
ENGRAVE P/N USING 0.11 HIGH LETTERS TO A MAX. DEPTH OF 0.010
- 7) WEIGHT: 0.21 lbs
- 8) LIQUID PENETRANT INSPECT PER QSI 038 6.1.1 (ASTM E1417 LEVEL 2)

D4885-5 END FITTING

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO 121407 MJS

1406-27

APPROVED

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	DC	DRAWING NO.	REV. A
MFG. APPR.	JLM	D4885	SHEET 4 OF 5
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	END FITTING	NTS
DATE	13.12.01	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO24906

Purchase Order Date 7/8/2014

PO Print Date 8/20/2014

Page Number 5 of 8

Order From :

VC-ATG001

Ship To : DART AEROSPACE LTD

A.T.G. INDUSTRIES INC.
31 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

613-446-4544

Ship To Contact

Ship To Phone

Ship Via:

VENDOR'S TRUCK

Ship Acct:

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

FCA - (Free Carrier)

Line Total:

D4885-5P

End Fitting

12/19/2014 FN

Yes

12/19/2014

5.00 ✓

Each

\$166.50

AS PER DWG D4885-5 REV.A

B121407

MAT: 174PH-H900R 2" M128314

Line Total:

D4885-7P

End Fitting

12/19/2014 FN

Yes

12/19/2014

10.00

Each

\$138.50

AS PER DWG D4885-7 REV. A

B121442

MAT: 174PH-H900R 2" M128809

Line Total:

D4805-5P

End Fitting

12/19/2014 FN

Yes

12/19/2014

16.00 ✓

Each

\$147.00

AS PER DWG D4805-5 REV. A

B121547

Note:

8/20/2014



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Number: 909410

Date: 07-Jan-15

To

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7
Canada

Ship To

CHANTAL LAVOIE
DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
Quantity	Description		
PLEASE REFERENCE THE PACK LIST NUMBER ON ALL CORRESPONDENCE TO THIS SHIPMENT. IF YOU HAVE ANY QUESTIONS, PLEASE CALL AT (613) 446-4544.			
5 ea	Part: D4885-5P END FITTING Job: 16647	Rev: A PO: PO24906	Line: 12
10 ea	Part: D4885-7P END FITTING Job: 16648	Rev: A PO: PO24906	Line: 13
12 ea	Part: D4806-1P CLEVIS Job: 16643	Rev: A PO: PO24906	Line: 8
DATE: 07/01/2015 CERTIFIED SIGNATURE: RECEIVER SIGNATURE: _____			
Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.			
CERTIFICATE OF CONFORMANCE			
A.T.G. INDUSTRIES INC. CERTIFIES THAT ALL ITEMS IN THIS SHIPMENT CONFORM TO THE REQUIREMENTS.			
MADE IN CANADA.			



F.A.I.

First Article Inspection Report

#

532

Requesting Company:	Dart Aerospace	PO#:	PO24906	Line:	12	Qty:	5
Part Number:	D4885-5P	Rev:	A	Part Description:	End Fitting		
FAI Supplied by:	A.T.G. Industries Inc.	FAI Prepared by:	Emily Louis-Seize	Date:	July 14, 2014		
Qty Inspected:	5	FAI Inspected by:	Mike Csontos	Date:	January 6, 2015		

Material and/or Special Processes

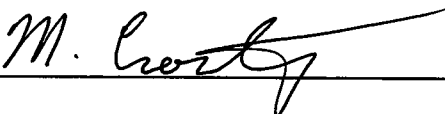
Type	Description	Specification Number/Code	Certificate of Conformance Number:
Material	17-4SS H900		Supplied by Customer
Special Process	Liquid Penetrant	QSI 038 6.1.1 (ASTM E1417 Level 2)	PO#: 20140525

Inspection Information and Results

Char#	Location	Requirement	Result	UoM	Pass/Fail	Measurement Equipment:	Operation #:
1	D6	1.53	1.533	inch	Pass	Depth Micrometer	1
2	D6	.030	.030	inch	Pass	Comparator	1
3	D5	.45	.447	inch	Pass	Height Gauge	2
4	D5	Ø.500	Ø.502	inch	Pass	Gauge Pin	1
5	D5	.017	.016	inch	Pass	Comparator	1
6	C6	.43	.431	inch	Pass	Micrometer	3
7	C6	.500	.500	inch	Pass	Height Gauge	3
8	C6	23.8°	23.8°	degree	Pass	Comparator	2
9	C7	.08 REF	.093	inch	Pass	Vernier Caliper	1
10	C7	3.70	3.703	inch	Pass	Height Gauge	2
11	C7	2.296±.005	2.298	inch	Pass	Height Gauge	3
12	D7	R.06	R.062	inch	Pass	Radius Gauge	2

Inspection Information and Results

Char#	Location	Requirement	Result	UoM	Pass/Fail	Measurement Equipment:	Operation #:
13	D8	.063	.065	inch	Pass	Micrometer	2
14	D8	.41	.413	inch	Pass	Vernier Caliper	2
15	D8	R.13 TYP	R.125	inch	Pass	Radius Gauge	2
16	D7	1.86	1.860	inch	Pass	Height Gauge	2
17	D7	.60	.60	inch	Pass	Height Gauge	2
18	D7	R.06	R.062	inch	Pass	Radius Gauge	2
19	D4	.52	.521	inch	Pass	Micrometer	2
20	D4	Ø.250/.249	Ø.2492	inch	Pass	Gauge Pin	2
21	D4	.131	.133	inch	Pass	Height Gauge	2
22	D3	Note 6	D4885-5	n/a	Pass	Visual	2
23	C3	.68	.682	inch	Pass	Height Gauge	2
24	C4	.11	.105	inch	Pass	Vernier Caliper	2
25	D5	.60	.595	inch	Pass	Comparator	2
26	D5	R.13	R.125	inch	Pass	Radius Gauge	2
27	D5	.80	.80	inch	Pass	Comparator	2
28	D5	.55 REF	.550	inch	Pass	Vernier Caliper	2
29	D1	R.49	R.483	inch	Pass	Gauge Pin	2
30	D3	.065 TYP	.067	inch	Pass	Micrometer	2
31	D3	.97	.965	inch	Pass	Vernier Caliper	2
32	B6	Ø.670+.000/-.001	Ø.6695	inch	Pass	Micrometer	1
33	B6	1.41	1.411	inch	Pass	Height Gauge	1
34	B6	R.031	R.031	inch	Pass	Radius Gauge	1
35	B8	1.10 REF	1.099	inch	Pass	Vernier Caliper	2
36	B4	Ø.86	Ø.858	inch	Pass	Comparator	1
37	B3	24°	24°	degree	Pass	Comparator	3

Inspection Information and Results							
Char#	Location	Requirement	Result	UoM	Pass/Fail	Measurement Equipment:	Operation #:
38	B4	Ø.125 thru	Ø.125	inch	Pass	Gauge Pin	3
39	B2	36°	36°	degree	Pass	Comparator	3
40	B2	Ø.125 thru	Ø.125	inch	Pass	Gauge Pin	3
First Article Inspection Report Approved and Completed in Full by:							
			Date:		6-Jan-15		



skyservice Work Order Traveler

Sky Service F.B.O. Inc.

DOT APP 53-89 / EASA 145.7142 / BDA-AMO 385

WO #: MWO23142	Customer: ATG Industries Inc	Dept: NDT YUL	Reference: 20140525
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

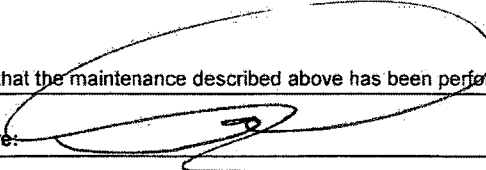
Work Required:

CARRY OUT NDT ON SEVENTY-FIVE PARTS AS PER PO : 20140525

CLEVIS	P/N D4806-1P QTY:12
END FITTING	P/N D4920-1P QTY:12
END FITTING EYE	P/N D4884-3P QTY:16
END FITTING	P/N D4885-5P QTY:6
END FITTING	P/N D4885-7P QTY:11
END FITTING	P/N D4920-3P QTY:18

Action Taken:						Date:	Initial/Stamp:
LIQUID PENETRANT INSPECTION CARRIED OUT AS PER ASTM E-1417M-13						JAN 06 2015	 
NO CRACK FOUND							
PEN.(ZL-37 , B#10A070), DEV.(SKD-S2,B#13D14k) , EMU.(ZR-10B,B#10A074).							
Description	Location	P/N	Qty	Batch	S/N Off	S/N On	

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature: 	ACA/SCA Stamp	Date:
Name: RAFIK MELIKIAN		JAN 06 2015

SKYM002-1 REV 4 Mar/14

COPY